STM-STRUCTURE SEARCY 10.20.04

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L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:276738 CAPLUS

DOCUMENT NUMBER:

138:287671

TITLE:

Preparation of aminoimidazopyridinylalkyl(thio)ureas

as cytokine biosynthesis inducers.

INVENTOR(S):

Dellaria, Joseph F.; Haraldson, Chad A.; Heppner, Philip D.; Lindstrom, Kyle J.; Merrill, Bryon A.

PATENT ASSIGNEE(S):

SOURCE:

3M Innovative Properties Company, USA U.S., 40 pp., Cont.-in-part of U.S. Ser. No. 16,073.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PAT	CENT I	NO.			KINI)	DATE			APPLICATION NO.			DA	DATE			
US	6545	017			B1	-	2003				002-					0020	
US	2002	1072	62		Al		2002				001-					0011	
WO	2003				A1		2003				002-			•		0020	
	W:	ΑE,	AG,	AL,	AM,		AT,										
					CU,		CZ,									EE,	•
		FI,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	ΗU,	ID,	IL,	IN,		JP,		
		KP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LΤ,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,
		MX,	MZ,	NO,	NΖ,		PH,										SK,
		SL,	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VN,	YU,	ZA,	ZM,	ZW,
		AM,	AZ,	BY,	KG												
	RW:	GH,	GM,		LS,		MZ,										
			DE,				FR,										TR,
		BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NΕ,	SN,	TD,	TG
WO	2003				A1		2003				2002-					0020	
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				HU,							KG,						LR,
		LS,	LT,	LU,	LV,		MD,										•
					RU,		SE,										TZ,
		UA,	UG,	US,	UZ,	VN,	YU,	ZA,	ZM,	ZW,	AM,	ΑZ,	BY,	KG,	KZ,	MD,	RU,
		TJ,	TM														
	RW:	GH,	GM,				MZ,										CH,
			DE,				FR,										TR,
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WO	2003	0501	19		A2		2003	0619		WO 2	2002-	US18	284		2	0020	607
WO	2003				A3		2003										
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		CN,	CO,	CR,	CU,	ĊZ,	CZ,	DE,	DE,	DK,	DK,	DM,	DZ,	ΕĊ,	EE,	EE,	ES,
		FI,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	HU,	- ID,	ΙL,	IN,	IS,	JΡ,	KΕ,	KG,
		KΡ,	KR,	KZ,			LR,										
		MX,	ΜZ,	NO,	NZ,	OM,	PH,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SK,
		SL,	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VN,	YU,	ZA,	ZM,	ZW,
		AM,	ΑZ,	ΒY,	KG						•			•			
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BR	2002	0147	49		Α		2004	0831		BR 2	2002-	1474	9		2	0020	607
EP	1451	186			A2		2004	0901		EP 2	2002-	7419	39		2	0020	607
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		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	ΑL,	TR						
EP	1451	187			A1		2004	0901		EP 2	2002-	7442	60		2	0020	607
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		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	ΑL,	TR						•

EP 1453829	A1 20040908	EP 2002-739783	20020607
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IE, SI, LT,	LV, FI, RO, MK, (CY, AL, TR	
US 2003176458	A1 20030918	US 2003-358017	20030204
US 6720334	B2 20040413		
US 2003195209	A1 20031016	US 2003-357777	20030204
US 6716988	B2 20040406		
US 2004157879	A1 20040812	US 2004-771639	20040204
PRIORITY APPLN. INFO.:		US 2000-254228P	P 20001208
		US 2001-16073	B2 20011206
		US 2002-165453	A1 20020607
		WO 2002-US18220	W 20020607
		WO 2002-US18282	W 20020607
		WO 2002-US18284	W 20020607
		US 2003-358017	A1 20030204

OTHER SOURCE(S):

MARPAT 138:287671

GΙ

$$R^3$$
 N
 R^2
 R^5
 YZR^1
 I

AB Title compds. [I; X = alkylene, alkenylene; Y = CO, CS; Z = NR6, NR6CO, NR6SO2, NR7; R1 = (substituted) aryl, heteroaryl, heterocyclyl, alkyl, alkenyl; R2 = H, (substituted) alkyl, alkenyl, aryl, heteroaryl, etc.; R3, R4 = H, alkyl, alkenyl, halo, alkoxy, amino, alkylthio; R5, R6 = H, alkyl; XR5, R1R7 = atoms to form a ring; R7 = H, (heteroatom-interrupted) alkyl], were prepared Thus, PhNCO was added to 1-(4-aminobutyl)-2-butyl-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-4-amine in CH2Cl2 under ice cooling followed by stirring for 30 min. to give N-[4-[4-amino-2-butyl-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-1-yl]butyl]-N'-phenylurea. The latter induced interferon and tumor necrosis factor synthesis in human peripheral blood mononuclear cells with least effective concns. of 0.12 and 0.37 μM, resp.

IT 499127-22-9P 499127-33-2P 507225-52-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of aminoimidazopyridinylalkyl(thio)ureas as cytokine biosynthesis inducers)

RN 499127-22-9 CAPLUS

CN Acetamide, N-[3-[4-amino-2-(ethoxymethyl)-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-1-yl]propyl]- (9CI) (CA INDEX NAME)

Me NH2
$$CH_2-OEt$$
 CH_2-OEt CH_2 OEt OET

RN 499127-33-2 CAPLUS

CN Acetamide, N-[4-(4-amino-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-1-yl)butyl]-(9CI) (CA INDEX NAME)

Me NH2 N
$$_{\rm N}$$
 (CH2) $_{\rm 4}-{\rm NHAC}$

RN 507225-52-7 CAPLUS

CN Acetamide, N-[2-(4-amino-2,6,7-trimethyl-1H-imidazo[4,5-c]pyridin-1-yl)ethyl]- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:276737 CAPLUS

DOCUMENT NUMBER:

138:304283

TITLE:

Preparation of aminoimidazopyridinylalkylamides as

inducers of cytokine biosynthesis.

INVENTOR(S):

Dellaria, Joseph F.; Haraldson, Chad A.; Heppner,

Philip D.; Lindstrom, Kyle J.; Merrill, Bryon A.

PATENT ASSIGNEE(S):

3M Innovative Properties Company, USA

SOURCE:

U.S., 37 pp., Cont.-in-part of U.S. Ser. No. 16,073,

abandoned.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	,		
PATENT NO.	KIND DATE	APPLICATION NO.	DATE
	<u></u>		
US 6545016	B1 2003040	8 US 2002-165229	20020607
US 2002107262	A1 2002080	8 US 2001-16073	20011206
WO 2003050117	A1 2003061	9 WO 2002-US18220	20020607
W: AE, AG, A	, AM, AT, AT, AU	, AZ, BA, BB, BG, BR,	BY, BZ, CA, CH,
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FI, FI, G	B, GD, GE, GH, GN	, HR, HU, ID, IL, IN,	IS, JP, KE, KG,
		, LT, LU, LV, MA, MD,	
MX, MZ, N), NZ, OM, PH, PI	, PT, RO, RU, SD, SE,	SG, SI, SK, SK,
SL, TJ, T	I, TN, TR, TT, T2	, UA, UG, US, UZ, VN,	YU, ZA, ZM, ZW,
AM, AZ, B	, KG		

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              BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                            WO 2002-US18282
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                                  20030619
                                                                        20020607
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              PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
              TJ, TM
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                                             WO 2002-US18284
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                           Α
                                  20040831
                                            BR 2002-14749
                                                                        20020607
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                                  20040901
                                             EP 2002-741939
                                                                        20020607
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                                  20040901 · EP 2002-744260
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             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
     EP 1453829
                           A1
                                  20040908
                                             EP 2002-739783
                                                                       20020607
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
     US 2003162806
                           A1
                                  20030828
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                                                                        20030204
     US 6720333
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                                  20031002
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                                                                        20040204
PRIORITY APPLN. INFO.:
                                               US 2000-254228P
                                                                    P 20001208
                                              US 2001-16073
                                                                    B2 20011206
                                              US 2002-165229
                                                                    A1 20020607
                                              WO 2002-US18220
                                                                    W 20020607
                                              WO 2002-US18282
                                                                    W 20020607
                                              WO 2002-US18284
                                                                    W
                                                                       20020607
                                               US 2003-357995
                                                                    A1 20030204
OTHER SOURCE(S):
                          MARPAT 138:304283
GΙ
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AB Title compds. [I; X = alkylene, alkenylene; Y = CO, CS; Z = bond, O, S; Rl = (substituted) aryl, heteroaryl, heterocyclyl; R2 = H, alkoxyalkyl, aryloxyalkyl, (substituted) aryl, heteroaryl, alkyl, alkenyl, etc.; R3, R4 = H, alkyl, alkenyl, halo, alkoxy, amino, alkylthio; R5 = H, alkyl; R5X, R1R5 = atoms to form a ring], were prepared Thus, Et3N and 1-(4-aminobutyl)-2-butyl-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-4-amine (preparation given) in CH2Cl2 were treated with methanesulfonic anhydride under ice cooling followed by stirring for 35 min. to give N-[4-(4-amino-2-butyl-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-1-yl)butyl]methanesulfonamide. The latter induced interferon and tumor necrosis factor production in human peripheral blood mononuclear cells at lowest effective concns. of 0.0046 and 0.01 μM, resp.

IT 499127-18-3P 499127-22-9P 499127-33-2P 499127-82-1P 507225-50-5P 507225-51-6P 507225-52-7P 507225-53-8P 507225-54-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(claimed compound; preparation of aminoimidazopyridinylalkylamides as inducers $\ensuremath{\mathsf{C}}$

of cytokine biosynthesis)

RN 499127-18-3 CAPLUS

CN Acetamide, N-[3-(4-amino-2,6,7-trimethyl-1H-imidazo[4,5-c]pyridin-1-yl)propyl]- (9CI) (CA INDEX NAME)

Me NH2 NH2 Me
$$(CH_2)_3$$
-NHAC

RN 499127-22-9 CAPLUS

CN Acetamide, N-[3-[4-amino-2-(ethoxymethyl)-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-1-yl]propyl]- (9CI) (CA INDEX NAME)

Me
$$NH_2$$
 NH_2 NH_2

RN 499127-33-2 CAPLUS

CN Acetamide, N-[4-(4-amino-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-1-yl)butyl]-(9CI) (CA INDEX NAME)

RN 499127-82-1 CAPLUS

CN Acetamide, N-[4-(4-amino-6,7-dimethyl-2-propyl-1H-imidazo[4,5-c]pyridin-1-yl)butyl]- (9CI) (CA INDEX NAME)

RN 507225-50-5 CAPLUS

CN Propanamide, N-[3-(4-amino-2,6,7-trimethyl-lH-imidazo[4,5-c]pyridin-1-yl)propyl]-2-methyl-(9CI) (CA INDEX NAME)

RN 507225-51-6 CAPLUS

CN Propanamide, N-[3-[4-amino-2-(ethoxymethyl)-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-1-yl]propyl]-2-methyl- (9CI) (CA INDEX NAME)

$$NH_2$$
 NH_2
 NH_2

RN 507225-52-7 CAPLUS

CN Acetamide, N-[2-(4-amino-2,6,7-trimethyl-lH-imidazo[4,5-c]pyridin-l-yl)ethyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{NH}_2 \\ \text{Me} \\ \\ \text{NH}_2 \\ \text{NH}_2 \\ \\ \text{NH}_2 \\ \\ \text{CH}_2 - \text{CH}_2 - \text{NHAC} \\ \end{array}$$

RN 507225-53-8 CAPLUS

CN Propanamide, N-[2-(4-amino-2,6,7-trimethyl-1H-imidazo[4,5-c]pyridin-1-yl)ethyl]-2-methyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{NH2} \\ \text{Ne} \\ \text{Ne} \\ \text{Ne} \\ \text{CH2-CH2-NH-C-Pr-i} \end{array}$$

RN 507225-54-9 CAPLUS

CN Acetamide, N-[2-[4-amino-2-(ethoxymethyl)-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-1-yl]-1,1-dimethylethyl]- (9CI) (CA INDEX NAME)

IT 507225-69-6P 507225-72-1P 507225-74-3P

507225-76-5P 507225-78-7P 507226-18-8P

507226-20-2P 507226-22-4P 507226-25-7P

507226-45-1P 507226-51-9P 507226-55-3P

507226-61-1P 507226-69-9P 507226-95-1P

507227-01-2P 507228-75-3P 507228-78-6P

507228-82-2P 507228-87-7P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of aminoimidazopyridinylalkylamides as inducers of cytokine biosynthesis)

RN 507225-69-6 CAPLUS

CN Pentanamide, N-[4-(4-amino-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-1-yl)butyl]- (9CI) (CA INDEX NAME)

Me
$$NH_2$$
 NH_2
 N

RN 507225-72-1 CAPLUS

CN Benzeneacetamide, N-[4-(4-amino-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-1-yl)butyl]- (9CI) (CA INDEX NAME)

RN 507225-74-3 CAPLUS

CN 2-Thiopheneacetamide, N-[4-(4-amino-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-1-yl)butyl]- (9CI) (CA INDEX NAME)

$$NH_2$$
 NH_2
 NH_2

RN 507225-76-5 CAPLUS

CN Benzenepropanamide, N-[4-(4-amino-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-1-yl)butyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{NH}_2 \\ \text{Ne} \\ \text{Ne} \\ \text{Ne} \\ \text{Ne} \\ \text{NH}_2 \\ \text{NH}_2$$

RN 507225-78-7 CAPLUS

CN Acetamide, N-[4-(4-amino-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-1-yl)butyl]-2-(phenylmethoxy)- (9CI) (CA INDEX NAME)

Me
$$\stackrel{NH_2}{\underset{Me}{\bigvee}}$$
 $\stackrel{N}{\underset{N}{\bigvee}}$ $\stackrel{O}{\underset{N}{\bigvee}}$ $\stackrel{O}{$

RN 507226-18-8 CAPLUS

CN Pentanamide, N-[2-(4-amino-2,6,7-trimethyl-1H-imidazo[4,5-c]pyridin-1-yl)ethyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{NH}_2 \\ \text{N} \\ \text{Me} \\ \end{array} \\ \begin{array}{c} \text{N} \\ \text{N} \\ \text{CH}_2-\text{CH}_2-\text{NH}-\text{C}-\text{Bu-n} \\ \end{array}$$

RN 507226-20-2 CAPLUS

CN Benzeneacetamide, N-[2-(4-amino-2,6,7-trimethyl-1H-imidazo[4,5-c]pyridin-1-yl)ethyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{NH}_2 \\ \text{Me} \\ \text{NH}_2 \\ \text{NH}_2 \\ \text{NH}_2 \\ \text{NH}_2 \\ \text{NH}_2 \\ \text{NH}_2 \\ \text{CH}_2 - \text{CH}_2 - \text{NH} - \text{C} - \text{CH}_2 - \text{Ph} \\ \text{NH}_2 \\ \text{CH}_2 - \text{CH}_2 - \text{NH} - \text{C} - \text{CH}_2 - \text{Ph} \\ \text{NH}_2 \\ \text{NH}_2 \\ \text{CH}_2 - \text{CH}_2 - \text{NH} - \text{C} - \text{CH}_2 - \text{Ph} \\ \text{NH}_2 \\ \text{NH}_2 \\ \text{CH}_2 - \text{CH}_2 - \text{NH} - \text{C} - \text{CH}_2 - \text{Ph} \\ \text{NH}_2 \\$$

RN 507226-22-4 CAPLUS

CN 2-Thiopheneacetamide, N-[2-(4-amino-2,6,7-trimethyl-1H-imidazo[4,5-c]pyridin-1-yl)ethyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{NH}_2 \\ & \text{N} \\ & \text{N} \\ & \text{Me} \end{array} \\ \begin{array}{c|c} & \text{N} \\ & \text{N} \\ & \text{CH}_2 \\ & \text{CH}_2 \\ & \text{NH} \\ & \text{CH}_2 \\ & \text{CH}_2 \\ & \text{NH} \\ \end{array}$$

RN 507226-25-7 CAPLUS

CN Benzenepropanamide, N-[2-(4-amino-2,6,7-trimethyl-1H-imidazo[4,5-c]pyridin-1-yl)ethyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{NH}_2 \\ \text{Ne} \\ \text{Ne} \\ \text{Ne} \\ \text{CH}_2-\text{CH}_2-\text{NH}-\text{C-CH}_2-\text{CH}_2-\text{Ph} \\ \end{array}$$

RN 507226-45-1 , CAPLUS

CN Pentanamide, N-[3-[4-amino-2-(ethoxymethyl)-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-1-yl]propyl]- (9CI) (CA INDEX NAME)

RN 507226-51-9 CAPLUS

CN Benzeneacetamide, N-[3-[4-amino-2-(ethoxymethyl)-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-1-yl]propyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{NH2} & \text{NH2} \\ & \text{N} & \text{CH}_2\text{-OEt} \\ & \text{Me} & \text{(CH}_2\text{)}_3\text{-NH-C-CH}_2\text{-Ph} \end{array}$$

RN 507226-55-3 CAPLUS

CN 2-Thiopheneacetamide, N-[3-[4-amino-2-(ethoxymethyl)-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-1-yl]propyl]- (9CI) (CA INDEX NAME)

RN 507226-61-1 CAPLUS

CN Benzenepropanamide, N-[3-[4-amino-2-(ethoxymethyl)-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-1-yl]propyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{NH2} \\ \text{N} \\ \text{Me} \end{array} \begin{array}{c} \text{CH}_2 - \text{OEt} \\ \text{O} \\ \text{(CH}_2)_3 - \text{NH} - \text{C} - \text{CH}_2 - \text{CH}_2 - \text{Ph} \end{array}$$

RN 507226-69-9 CAPLUS

CN Acetamide, N-[3-[4-amino-2-(ethoxymethyl)-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-1-yl]propyl]-2-(phenylmethoxy)- (9CI) (CA INDEX NAME)

RN 507226-95-1 CAPLUS

CN Acetamide, N-[2-(4-amino-2,6,7-trimethyl-1H-imidazo[4,5-c]pyridin-1-yl)ethyl]-2-(phenylmethoxy)- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{NH}_2 \\ \text{NMe} \\ \text{NH}_2 \\$$

RN 507227-01-2 CAPLUS

CN Acetamide, 2-(acetyloxy)-N-[2-(4-amino-2,6,7-trimethyl-1H-imidazo[4,5-c]pyridin-1-yl)ethyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{NH}_2 \\ \text{NMe} \\ \text{NMe} \\ \text{NMe} \\ \text{CH}_2\text{--} \text{CH}_2\text{--} \text{NH}\text{--} \text{C}\text{--} \text{CH}_2\text{--} \text{OAC} \\ \end{array}$$

RN 507228-75-3 CAPLUS

CN Pentanamide, N-[3-(4-amino-2,6,7-trimethyl-1H-imidazo[4,5-c]pyridin-1-yl)propyl]- (9CI) (CA INDEX NAME)

$$Me$$
 $NH2$
 $NH3$
 $NH4$
 $NH4$

RN 507228-78-6 CAPLUS

CN Benzeneacetamide, N-[3-(4-amino-2,6,7-trimethyl-1H-imidazo[4,5-c]pyridin-1-yl)propyl]- (9CI) (CA INDEX NAME)

RN 507228-82-2 CAPLUS

CN 2-Thiopheneacetamide, N-[3-(4-amino-2,6,7-trimethyl-1H-imidazo[4,5-c]pyridin-1-yl)propyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{NH}_2 \\ & \text{N} \\ & \text{N} \\ & \text{Me} \end{array}$$

RN 507228-87-7 CAPLUS

CN Benzenepropanamide, N-[3-(4-amino-2,6,7-trimethyl-1H-imidazo[4,5-c]pyridin-1-yl)propyl]- (9CI) (CA INDEX NAME)

Me
$$NH_2$$
 NH_2 NH_2

REFERENCE COUNT:

59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:150533 CAPLUS

DOCUMENT NUMBER:

138:187770

10/772,170 Preparation of sulfonamido/benzamido-alkyl substituted TITLE: imidazopyridines as immune response modifiers Dellaria, Joseph F.; Haraldson, Chad A.; Heppner, Philip D.; Lindstrom, Kyle J.; Merrill, Bryon A. INVENTOR(S): PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA U.S., 35 pp., Cont.-in-part of U.S. Ser. No. 16,073, SOURCE: abandoned. CODEN: USXXAM DOCUMENT TYPE: Patent English LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

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		, CO,														
		, FI,														
		, KR,														
		, MZ,														
	SL				TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VN,	ΥU,	ZA,	ZM,	ZW,
		, AZ,	,		NATA?	MT	CD	Ст	C	TI CZ	T TC	77 N.A	771.7	N CD	DE	OII
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		, DE,												-	-	•
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		, KR,														
		, MZ,														
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		, AZ,	•		N. (T.)	NACZ	αD	CIT.	O.P.	mo	110	C7.N.f	C75.7	3 C	D.7	CI.
	RW: GH															
		, DE,														
BB	2002014	, BJ,	Cr,	A		2004			BR 2				NE,		1D, 0020	
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		BE,	СН										NT.			
		SI,										шо,	ND,	Su,	IIC,	11,
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PRIORITY APPLN. INFO :			US	2000-254228P	P	20001208
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			MO	2002-US18220	W	20020607
			WO	2002-US18282	W	20020607
			WO	2002-US18284	W	20020607
			US	2002-322262	A1	20021217

OTHER SOURCE(S):

MARPAT 138:187770

GI

$$R^{3}$$
 N^{H_2}
 N^{R^2}
 N^{R^5}
 N^{R^5

$$\begin{array}{c} NH2 \\ NH2 \\ NH \\ NH \end{array}$$

Title compds. I [X = alk(en)ylene; Y = SO2; Z = bond, amino; R1 = aryl, heteroaryl, alkyl, heterocyclyl, etc.; R2 = H, alkyl, alkenyl, aryl, etc.; R3-4 = H, alkyl, alkenyl, halo, alkoxy, etc.; R5 = H, alkyl, etc.] are prepared For instance, 4-hydroxy-5,6-dimethyl-3-nitro-2(1H)-pyridone was reacted with triflic anhdydride and mono-boc-1,4-butanediamine to give 4-[[4-[(tert-butoxycarbonyl)amino]butyl]amino]-5,6-dimethyl-3-nitropyridin-2-yl trifluoromethanesulfonate. This intermediate was reacted with dibenzylamine (PhMe, Et3N), reduced to the amino derivative (MeOH, NaBH4, NiCl2), acylated/cyclized (CH3CN, valeryl chloride, Et3N), deprotected (CH2Cl2, triflic acid) and acylated (CH2Cl2, PhCOCl) to give II. II caused interferon induction at 0.12 μM and TNF induction at 1.11 μM. I can induce the biosynthesis of various cytokines and are useful in the treatment of a variety of conditions including viral diseases and neoplastic diseases.

IT 499127-18-3P, N-[3-(4-Amino-2,6,7-trimethyl-1H-imidazo[4,5-c]pyridin-1-yl)propyl]acetamide 499127-22-9P,
N-[3-[4-Amino-2-(ethoxymethyl)-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-1-yl]propyl]acetamide 499127-33-2P, N-[4-(4-Amino-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-1-yl)butyl]acetamide 499127-82-1P,
N-[4-(4-Amino-6,7-dimethyl-2-propyl-1H-imidazo[4,5-c]pyridin-1-yl)butyl]acetamide 499128-17-5P, N-[2-(4-Amino-2,6,7-trimethyl-1H-imidazo[4,5-c]pyridin-1-yl)ethyl]acetamide hydrochloride
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of sulfonamido/benzamido-alkyl substituted imidazopyridines as immune response modifiers)

RN 499127-18-3 CAPLUS

CN Acetamide, N-[3-(4-amino-2,6,7-trimethyl-1H-imidazo[4,5-c]pyridin-1-yl)propyl]- (9CI) (CA INDEX NAME)

Me
$$NH_2$$
 NH_2 NH_2

RN 499127-22-9 CAPLUS

CN Acetamide, N-[3-[4-amino-2-(ethoxymethyl)-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-1-yl]propyl]- (9CI) (CA INDEX NAME)

$$^{\mathrm{NH_2}}$$
 $^{\mathrm{CH_2-OEt}}$ $^{\mathrm{NH_2}}$ $^{\mathrm{CH_2-OEt}}$ $^{\mathrm{NH_2}}$ $^{\mathrm{CH_2-OEt}}$ $^{\mathrm{NH_2}}$ $^{\mathrm{$

RN 499127-33-2 CAPLUS

CN Acetamide, N-[4-(4-amino-6,7-dimethyl-1H-imidazo[4,5-c]pyridin-1-yl)butyl](9CI) (CA INDEX NAME)

RN. 499127-82-1 CAPLUS

CN Acetamide, N-[4-(4-amino-6,7-dimethyl-2-propyl-1H-imidazo[4,5-c]pyridin-1-yl)butyl]- (9CI) (CA INDEX NAME)

Me NH2 Pr-n
$$_{\rm N}$$
 (CH2) $_{\rm 4}-{\rm NHAC}$

CN

RN 499128-17-5 CAPLUS

Acetamide, N-[2-(4-amino-2,6,7-trimethyl-1H-imidazo[4,5-c]pyridin-1-yl)ethyl]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

REFERENCE COUNT:

THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L1

(FILE 'HOME' ENTERED AT 09:24:38 ON 20 OCT 2004)

59

FILE 'REGISTRY' ENTERED AT 09:24:57 ON 20 OCT 2004

STRUCTURE UPLOADED

L2 1 S L1

L3 30 S L1 FULL

FILE 'CAPLUS' ENTERED AT 09:25:40 ON 20 OCT 2004

L4 3 S L3

=> d 11

L1 HAS NO ANSWERS

L1 STR

- G1 O,S
- G2 H,Me
- G3 H,Ak
- G4 Cy,Ak

Structure attributes must be viewed using STN Express-query preparation.

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PALM INTRANET

Day: Wednesday Date: 10/20/2004 Time: 09:13:36

Inventor Name Search Result

Your Search was:

Last Name = HEPPNER

First Name = PHILIP

Application#	Patent#	Status	Date Filed	Title	Inventor Name 42
60603303	Not Issued	020	08/20/2004	PYRAZOLOPYRIDINES AND ANALOGS THEREOF	HEPPNER, PHILIP D
60581317	Not Issued	020	06/18/2004	ARYL SUBSTITUTED IMIDAZONAPHTHYRIDINES	HEPPNER, PHILIP D.
60581316	Not Issued	020	06/18/2004	SUBSTITUTED THIAZOLOPYRIDINES, THIAZOLOQUINOLINES AND THIAZOLONAPHTHYRIDINES	HEPPNER, PHILIP D
60581297	Not Issued	020	06/18/2004	ARYLOXY AND ARYLALKYLENEOXY SUBSTITUTED THIAZOLOQUINOLINES AND THIAZOLONAPHTHYRIDINES	HEPPNER, PHILIP D.
<u>60581205</u>	Not Issued	020	06/18/2004	ARYL AND ARYLALKYENYL SUBSTITUTED THIAZOLOQUINOLINES AND THIAZOLONAPHTHYRIDINES	HEPPNER, PHILIP D
60579352	Not Issued	020	06/14/2004	UREA SUBSTITUTED IMIDAZOPYRIDINES, IMIDAZOQUINOLINES, AND IMIDAZONAPHTHYRIDINES	HEPPNER, PHILIP D.
60554680	Not Issued	020	03/19/2004	PYRAZOLOPYRIDINES AND ANALOGS THEREOF	HEPPNER, PHILIP D.
60516331	Not Issued	020	10/31/2003	ARYL SUBSTITUTED IMIDAZOQUINOLINES	HEPPNER, PHILIP D.
60508634	Not Issued	159	10/03/2003	ALKOXY SUBSTITUTED IMIDAZOQUINOLINES	HEPPNER, PHILIP D.
60254218	Not Issued	159	12/08/2000	ETHER SUBSTITUTED IMIDAZOQUINOLINES	HEPPNER, PHILIP D.
10824232	Not Issued	030	04/14/2004	IMIDAZONAPHTHYRIDINES	HEPPNER, PHILIP D
10772170	Not	030	02/04/2004	AMIDE SUBSTITUTED	HEPPNER,

	Issued			IMIDAZOPYRIDINES	PHILIP D.
10771639	Not Issued	041	02/04/2004	UREA SUBSTITUTED IMIDAZOPYRIDINES	HEPPNER, PHILIP D
10754056	Not Issued	041	01/07/2004	SULFONAMIDO SUBSTITUTED IMIDAZOPYRIDINES	HEPPNER, PHILIP D.
10696753	Not Issued	061	10/29/2003	ARYL ETHER SUBSTITUTED IMIDAZOQUINOLINES	HEPPNER, PHILIP D
10696478	Not Issued	071	10/29/2003	SULFONAMIDO ETHER SUBSTITUTED IMIDAZOQUINOLINES	HEPPNER, PHILIP D.
10696476	Not	030	10/29/2003	SULFONAMIDO ETHER	HEPPNER,
	Issued			SUBSTITUTED IMIDAZOQUINOLINES	PHILIP D.
10696108	Not Issued	061	10/29/2003	ARYL ETHER SUBSTITUTED IMIDAZOQUINOLINES	HEPPNER, PHILIP D.
10681814	Not Issued	071	10/07/2003	UREA SUBSTITUTED IMIDAZOQUINOLINE ETHERS	HEPPNER, PHILIP D.
10681711	Not Issued	071	10/07/2003	AMIDO ETHER SUBSTITUTED IMIDAZOQUINOLINES	HEPPNER, PHILIP D.
10681457	Not Issued	030	10/07/2003	AMIDO ETHER SUBSTITUTED IMIDAZOQUINOLINES	HEPPNER, PHILIP D
10680989	Not Issued	071	10/07/2003	UREA SUBSTITUTED IMIDAZOQUINOLINE ETHERS	HEPPNER, PHILIP D.
10675833	Not Issued	071	09/30/2003	HETEROCYCLIC ETHER SUBSTITUTED IMIDAZOQUINOLINES	HEPPNER, PHILIP D
10456308	6797718	150	06/06/2003	ETHER SUBSTITUTED IMIDAZOPYRIDINES	HEPPNER, PHILIP D.
10406181	6797716	150	04/03/2003	IMIDAZONAPHTHYRIDINES	HEPPNER, PHILIP D
10358017	6720334	150	02/04/2003	UREA SUBSTITUTED IMIDAZOPYRIDINES	HEPPNER, PHILIP D.
10357995	6720333	150	02/04/2003	AMIDE SUBSTITUTED IMIDAZOPYRIDINES	HEPPNER, PHILIP D.
10322262	6696465	150	12/17/2002	SULFONAMIDO SUBSTITUTED IMIDAZOPYRIDINES	HEPPNER, PHILIP D.
<u>10165750</u>	6677348	150	06/07/2002	ARYL ETHER SUBSTITUTED IMIDAZOQUINOLINES	HEPPNER, PHILIP D
10165453	6545017	150 .	06/07/2002	UREA SUBSTITUTED IMIDAZOPYRIDINES	HEPPNER, PHILIP D.
10165449	6664265	150	06/07/2002	AMIDO ETHER SUBSTITUTED IMIDAZOQUINOLINES	HEPPNER, PHILIP D
10165443	6677347	150		SULFONAMIDO ETHER SUBSTITUTED	HEPPNER, PHILIP D.

				IMIDAZOQUINOLINES	
10165229	6545016	150	06/07/2002	AMIDE SUBSTITUTED IMIDAZOPYRIDINES	HEPPNER, PHILIP D.
10165002	6525064	150	06/07/2002	SULFONAMIDO SUBSTITUTED IMIDAZOPYRIDINES	HEPPNER, PHILIP D.
10164816	6660735	150	06/07/2002	UREA SUBSTITUTED IMIDAZOQUINOLINE ETHERS	HEPPNER, PHILIP D.
10013202	6670372	150	12/06/2001	ARYL ETHER SUBSTITUTED IMIDAZOQUINOLINES	HEPPNER, PHILIP D.
10013060	6656938	150	12/06/2001	UREA SUBSTITUTED IMIDAZOQUINOLINE ETHERS	HEPPNER, PHILIP D
10012599	6683088	150	12/06/2001	SULFONAMIDO ETHER SUBSTITUTED IMIDAZOQUINOLINES	HEPPNER, PHILIP D.
10011921	6664260	150	12/06/2001	HETEROCYCLIC ETHER SUBSTITUTED IMIDAZOQUINOLINES	HEPPNER, PHILIP D
10011670	<u>6660747</u>	150	12/06/2001	AMIDO ETHER SUBSTITUTED IMIDAZOQUINOLINES	HEPPNER, PHILIP D.
09706990	6514985	150	11/06/2000	IMIDAZONAPHTHYRIDINES	HEPPNER, PHILIP D.
09210114	6194425	150	12/11/1998	IMIDAZONAPHTHYRIDINES	HEPPNER , PHILIP D.

Inventor Search Completed: No Records to Display.

	Last Name	First Name
Search Another:	Heppner	Philip
Inventor	•	Search

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